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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,531	07/09/2001	Brian C. Barnes	2000.054600	7123

23720 7590 03/15/2006

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EXAMINER

BROWN, CHRISTOPHER J

ART UNIT PAPER NUMBER

2134

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/901,531	Applicant(s) BARNES ET AL.	
	Examiner Christopher J. Brown	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15, 17-21 is/are rejected.
- 7) ☒ Claim(s) 5, 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 1/17/2006, with respect to the 112 1ST and 2nd rejections have been fully considered and are persuasive. The rejection of claims 1, 12, and 21 has been withdrawn.

Applicant's arguments filed 1/17/2006 with respect to the 103(a) rejection have been fully considered but they are not persuasive.

Applicant argues that Nay US 5,237,567 does not teach authentication and signaling a security violation. The examiner argues that Nay does teach authentication (verification of data) using the same method as the invention, a checksum of sent data or codes, (Nay Col 37 lines 35-50). Nay teaches discovering errors in the data which is a signal that there has been a violation in the data that was sent over the bus, (Col 37 line 46-50).

Applicant argues that Nay does not provide proper motivation to be combined with Roeck US 6,594,305. The examiner asserts that one of ordinary skill in the art would recognize the benefit and motivation to use the method of insuring data integrity, and prevent errors to secure a system and make it reliable.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 7-10, 11, 12, 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roeck US 6,594,305 in view of Nay US 5,237,567.

As per claims 1, 8, 12, 19, and 21, Roeck teaches a hardware unit (modem) adapted to receive an incoming signal over a communications channel, (Col 7 lines 60-65). Roeck teaches that the modem accepts control codes over the communications channel (messages), (Col 8 lines 33-37). Roeck teaches that the unit communicates with assigned transmission parameters (power, freq, and time slot), (col 8 line 37).

Roeck does not teach authentication codes, or security violations.

Nay teaches generating an authentication code (hash or check sum) from data and transferring the data and authentication code to a unit, (Col 37 lines 35-51). If the codes are inconsistent, the unit signals a security violation, (Col 37 line 39). It would have been obvious to one of ordinary skill in the art to combine the communication system of Roeck with the authentication mechanism of Nay to prevent message tampering and improve security.

Art Unit: 2134

As per claims 7, and 18, Nay teaches that the program generates authentication code based on data (hash, checksum), (col 27 lines 40-45).

As per claim 9 Nay teaches the processing unit comprises a computer, (Col 37 line 43).

As per claim 10 Nay teaches the processor is coupled to a bus, (Col 37 lines 40-44). Nay teaches an expansion card coupled to the bus, (Col 27 lines 60-63).

As per claim 11, and 20, Roeck teaches that the hardware unit is adapter to prohibit at least some communication over the communication channel in response to an error (Col 8 lines 55-60).

Claims 2, 3, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roeck US 6,594,305 in view of Nay US 5,237,567, in view of Spelman US 5,680,458.

As per claims 2, 3, 13, and 14 Spelman discloses sending authentication code, hidden, out of band, (Col 4 lines 14-20).

It would have been obvious to one of ordinary skill in the art to modify the previous Roeck-Nay system with the out of band messaging of Spelman to assure that the message has not been tampered with (Spelman Col 4 lines 31-34).

Claims 4, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roeck US 6,594,305 in view of Nay US 5,237,567 in view of Mergard US 5,881,248

Art Unit: 2134

As per claims 4, and 15, Mergard discloses use of the unused portions of the bus, (Col 1 lines 45-52). It would have been obvious to modify the Roeck-Nay system with Mergard because the utilization improved bus performance.

Claims 6, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roeck US 6,594,305 in view of Nay US 5,237,567 in view of Whitmire US 6,115,817

As per claims 6, and 17 Witmire discloses use of cryptography to send data over a network, the recipient decrypts all of the data including codes, (Col 1 lines 48-60). It would have been obvious to modify the previous Roeck-Nay system with the cryptography of Whitmire to increase security.

Allowable Subject Matter

3. Claims 5 and 16 are objected to due to their dependence on rejected independent claims.

Currently claims 5, and 16 are allowable over the prior art of record.

Neither Roeck, Nay, or any of the prior art of record shows “wherein the processing unit includes a data bus adapted to transfer data in frames having a number of fixed slots, and the software driver includes program instructions adapted to transfer the authentication code using a frame having more slots than the fixed number of slots”.

Art Unit: 2134

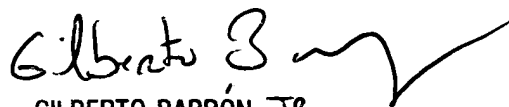
Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher J. Brown whose telephone number is (571)272-3833. The examiner can normally be reached on 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (571)272-3838. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher J. Brown

3/9/06



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